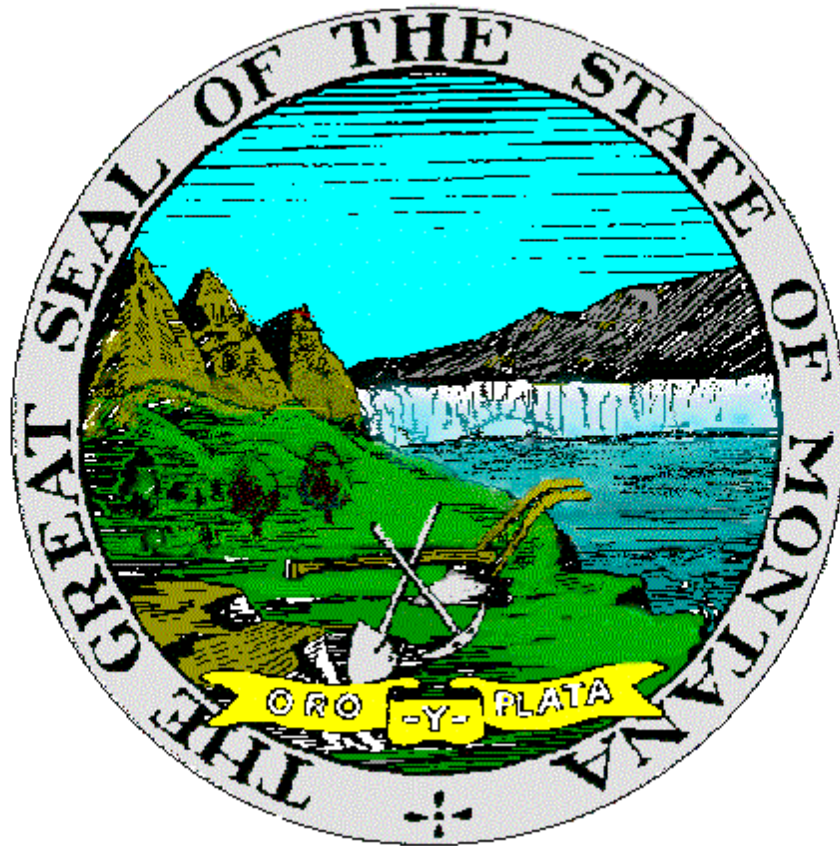


MONTANA HOSPITAL DISCHARGE DATA SYSTEM



DATA DICTIONARY FOR HOSPITAL DISCHARGE DATA

Introducing the Montana Hospital Discharge Data System

The Montana Department of Public Health and Human Services (DPHHS) has a memorandum of agreement with the Montana Hospital Association (MHA) to receive a subset of hospital discharge data elements (Table 1) based on the Uniform Billing 2004 form (UB-04).¹ Although not specifically designed for Public Health use, the UB-04 data are potentially a useful resource for Public Health programs. The Montana Hospital Discharge Data System (MHDDS) allows DPHHS to monitor the burden of many diseases in the population in the absence of disease - specific registries.

The Montana Hospital Discharge Data System Data Elements and Limitations

Each record in the MHDDS has one primary diagnosis code, and may have up to eight secondary codes which reflect a variety of co-morbidities or underlying conditions contributing to the reason for hospitalization. Primary and secondary codes may also describe Supplementary Classification of Factors Influencing Health Status and Contact with Health Services (V-codes); secondary codes may describe Supplementary Classification of External Causes of Injury and Poisoning (E-codes). In addition, records may have up to three E-codes as separate variables. Each record also has a primary and up to five secondary procedure codes. All are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM).² Depending on the intent of the analysis, investigators may use the primary diagnosis alone or in combination with secondary diagnoses and V-codes and E-codes to select cases for analysis.

Table 1. Variables Included in the Montana Hospital Discharge Data System

State and county of residence	Primary diagnosis
Sex	Secondary diagnoses (up to 8)
Age	Primary procedure
Admission date	Secondary procedures (up to 5)
Admission type	Dates Of Procedures
Admission source	E-codes
Discharge date	V-codes
Discharge status	Facility identifier
Total charges (2010)	Payer

At this time, the MHDDS contains only data on individuals who were admitted to a Montana hospital that provides data through the MHA agreement. No data are

¹ National Uniform Billing Committee, www.nubc.org

² <http://www.cdc.gov/nchs/icd.htm>

current available on individuals treated and released in an Emergency Department. The MHDDS data sets do not contain individual identifiers so hospital discharges cannot be linked to other data sets, and the data cannot be de-duplicated if individuals are admitted more than once during a time interval of interest. No interstate agreements exist for exchange of data on Montana residents hospitalized out of state.

Data Reporting And Completeness

Information about reporting completeness can be found in the directory H:\MHDD\documentation, in the spreadsheet entitled Reporting_Completeness.xlsx. This contains the number of beds for each hospital in Montana, comments on hospital type, and number of discharges reported by the hospital, along with the number included in the Hospital Discharge Data System.

Table 2: Reporting completeness by year

Year	2000	2001	2002	2003	2004	2005	2006	2007	2010	2009	2010
Participating hospitals	44	43	47	44	47	46	48	47	48	46	
Cases Reported	97459	102739	104294	103138	104967	109491	112861	109962	99374	102316	
Percent Of Discharges Reported	96.36%	96.59%	97.31%	94.89%	96.13%	98.33%	98.63%	97.79%	90.61%	96.43%	

Build Process

Hospital discharge data is currently received on physical media from MHA. It is then transferred to the directory H:\MHDD\data files\MHDD_RAW. The data is in comma delimited format, with an irregular format. A SAS program in H:\MHDD\Programs\BUILDSAS is used to regularize the data, convert numeric to categorical variables, reclassify variables, separate / combine data into yearly datasets, and set length of variables. This program is designed to be self contained, and capable of running with minimal operator interaction. SPSS can directly read SAS datasets, so future datasets will be made in SAS. Datasets are separated by year of discharge, to parallel MHA.

The dataset dictionary should be updated each year, when the build process is done. Variables need to be checked for number / character compatibility, especially if MHA changes formats.

Formats

Many variables have nominal numeric or character values. A format gives the meaning of such values. Formats for variables are given in the directory H:\MHDD\Formats, and associated formats for each variable are given in the detail section. For help with formats in SAS, see *My Friend The SAS Format*, by Andrew Karp, available at <http://www2.sas.com/proceedings/sugi30/253-30.pdf>. For SPSS, value

labels are the equivalent of SAS formats.

Data Use Agreement

The Hospital Discharge Data is provided by the Montana Hospital Association, which is the owner of the Hospital Discharge Data. Users should be aware of the data use agreement provided in the directory H:\MHDD\Data Use Log. Data should be properly attributed to MHA, which can be done using the following footnote:

```
FOOTNOTE1 'DATA PROVIDED BY MONTANA HOSPITAL ASSOCIATION. '  
'HOSPITAL DISCHARGE DATA ARE LIMITED TO REPORTING MONTANA HOSPITALS.';
```

Data Layout For SAS / SPSS Datasets (May not include all derived variables)						
#	Variable	Type	Length (Bytes)	Format	Informat	Label
1	PTSTATECNTY	Num	8			GEOGRAPHICAL - PATIENT'S STATE AND COUNTY OF RESIDENCE (FIPS)
2	FACILITYID	Num	8			FACILITY ID - MHA PROVIDER LIST FORMAT: Pro_Fac
3	SEX	Char	1			PATIENT'S SEX, M OR F
4	ADMDATE	Num	8	MMDDYY10.	MMDDYY10.	ADMISSION DATE - STORED AS SAS SERIAL DATE
5	ADMSOURCE	Num	8			ADMISSION SOURCE - MHA PROVIDER LIST FORMAT: AD_Source.sas. 'A' value recoded to 10.
6	ADMTYPE	Num	8			ADMISSION TYPE - MHA PROVIDER LIST FORMAT: AD_Type.sas
7	DISCHDATE	Num	8	MMDDYY10.	MMDDYY10.	DISCHARGE DATE - STORED AS SAS SERIAL DATE
8	PAYERCLASS	Num	8			PAYER: THREE CLASSES AND UNKNOWN. FORMAT: Pay_Short.sas
9	PRIM	Char	5			PRIMARY DIAGNOSIS CODE - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
10	S1	Char	5			SECONDARY DIAGNOSIS CODE 1 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
11	S2	Char	5			SECONDARY DIAGNOSIS CODE 2 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
12	S3	Char	5			SECONDARY DIAGNOSIS CODE 3 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
13	S4	Char	5			SECONDARY DIAGNOSIS CODE 4 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
14	S5	Char	5			SECONDARY DIAGNOSIS CODE 5 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
15	S6	Char	5			SECONDARY DIAGNOSIS

						CODE 6 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
16	S7	Char	5			SECONDARY DIAGNOSIS CODE 7 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
17	S8	Char	5			SECONDARY DIAGNOSIS CODE 8 - CHARACTER FORMAT \$DX_CLASS.FMT.SAS
18	PRINPROC	Char	4			PRINCIPAL PROCEDURE CODE - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
19	PROC1	Char	4			PROCEDURE CODE 1 - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
20	PROC2	Char	4			PROCEDURE CODE 2 - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
21	PROC3	Char	4			PROCEDURE CODE 3 - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
22	PROC4	Char	4			PROCEDURE CODE 4 - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
23	PROC5	Char	4			PROCEDURE CODE 5 - CHARACTER FORMAT \$PR_CLASS.FMT.SAS
24	DRG	Num	8			CLINICAL DRG - Format: DRG_Val.FMT.sas
25	MDC	Num	8			CLINICAL MDC CATEGORY - Format: MDC_Val.FMT.sas
26	DISCHSTATUS	Num	8			DISCHARGE STATUS - MHA PROVIDER LIST FORMAT: Dis_Status.sas
27	AGE	Num	8	BEST12.	BEST32.	AGE IN YEARS
28	LOS	Num	8	BEST12.	BEST32.	LENGTH OF STAY IN DAYS
29	ECODE1	Char	5			CLINICAL E-CODE 1 - ICD - 9-CM
30	ECODE2	Char	5			CLINICAL E-CODE 2 - ICD - 9-CM
31	ADMSOURCECHAR	Char	2			ADMISSION SOURCE - CHARACTER TO SUPPORT VALUE OF 'A'
32	CTYFIPS	Num	3			COUNTY OF RESIDENCE - FIPS
33	STFIPS	Num	3			STATE OF RESIDENCE - FIPS
34	TOTALCHARGE	Num	8	DOLLAR13.2		TOTAL CHARGES FOR HOSPITALIZATION
35	PTZIP	Num	8			PATIENT'S ZIP CODE
36	PRINPROCDATE	Num	8	DATE9.		DATE OF PRIMARY

					PROCEDURE
37	PROC1DATE	Num	8	DATE9.	DATE OF FIRST PROCEDURE
38	PROC2DATE	Num	8	DATE9.	DATE OF SECOND PROCEDURE
39	PROC3DATE	Num	8	DATE9.	DATE OF THIRD PROCEDURE
40	PROC4DATE	Num	8	DATE9.	DATE OF FOURTH PROCEDURE
41	PROC5DATE	Num	8	DATE9.	DATE OF FIFTH PROCEDURE
42	ADYEAR	Num	8		ADMISSION YEAR
43	DISYEAR	Num	8		DISCHARGE YEAR
44	HOSPCTYFIPS	Num	8		GEOGRAPHICAL - HOSPITALS'S COUNTY(FIPS)
45	HOSPTRAUMA	Num	8		HOSPITAL'S TRAUMA LEVEL - FORMAT: TRAUMA.FMT.sas
46	ECODE3	Char	5		CLINICAL E-CODE 3 - ICD - 9-CM

SERIAL NUMBER

The serial number is a unique 10 digit number assigned to each record by the Hospital Discharge Data System. It is designed to simplify selection of records.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
RECORDSERIAL	2000000001, 2000000002, etc.	None		

PATIENT'S COUNTY OF RESIDENCE

The patient's county of residence is given in five digit FIPS format. The first two digits represent the state of residence, and the last three represent county of residence. Because the variable is numeric, a leading zero digit is dropped. A table of state codes can be found at <http://www.economicexpert.com/a/FIPS:state:code.htm>. A table of Montana counties of residence can be found online at http://mcdc2.missouri.edu/webrepts/commoncodes/ccc_mt.html.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
PTSTATECNTY	1004,30001		None	Can be converted respectively to the following:
STFIPS	1-78,99	ST_FIPS.FMT.SAS		30 is the value for Montana. STFIPS = INPUT(SUBSTR(PTSTATECNTY,5.),1,2),2.);
CTYFIPS	1-111,999 (for Montana)	COUNTIES_FIPS.FMT		CTYFIPS = MOD(PTSTATECNTY,1000);

FACILITY ID

Facility ID is an eight digit variable for facility. Variables for county and trauma level are derived from facility ID. If the format Pro_Fac is altered, the associated informats need to be altered correspondingly. In 2010, due to an export error, the last two digits of facility ID were cut off, which was corrected in the build program. The SAS format is adjusted accordingly.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
FACILITYID	30000501 – 30999901 (2000-2007), 300005 – 309999 (2010)	Pro_Fac.sas	None	FACILITYID was exported from MHA improperly in 2010. This is corrected in the build program.
HOSPCTYFIPS	1-111	COUNTIES_FIPS.FMT		This is the county that the hospital is located in. One should treat this variable carefully, as it can be used to identify hospitals. HOSPTOCTY.INMFT.sas is used as an informat.
HOSPTRAUMA	2-6,9	TRAUMA.FMT.sas		This is the trauma level designation, currently applied to 2010. This currently has trauma level designation as of Dec 28, 2009, however it is subject to change. HOSPTOTRAUMA.INFMT.sas is used as an informat.

SEX

Sex is the gender of the patient. It is a length one character variable.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
SEX	M,F,U		None	
SEXNUM	1,2,9			SEXNUM is a numeric recode of sex, to be compatible with other datasets which use numeric sex, such as population and vital stats data.

ADMISSION DATE

Admission date is the patient's date of admission. It is stored as a SAS serial date (number of days since Jan 1, 1960). Thus, it displays with values such as 08/04/2000 in SAS and 15-Dec-2000 in SPSS.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
ADMDATE	SAS Serial Date	MMDDYY10.	None	Variables can be derived using SAS date functions such as YEAR, DAY, MONTH.
ADYEAR	2000-2010			Created using SAS data function YEAR()

ADMISSION SOURCE

Admission source is a two digit numeric code for the patient's source of admission.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
ADMSOURCE	1-19	AD_Source.sas		Values can be found in the associated SAS format, in the directory H:\MHDD\Formats.
ADMSOURCECHAR	'1'-'19', 'A'	\$AD_Char.sas		Admission source originally comes in as a character variable, this retains the character values, which are recoded to 10 for the numeric variable.
'01' = 'Physician Referral' '02' = 'Clinic Referral' '03' = 'HMO Referral' '04' = 'Transfer from a hospital' '05' = 'Transfer from a skilled nursing facility' '06' = 'Transfer from another health care facility' '07' = 'Emergency Room' '08' = 'Court / Law Enforcement' '09','19' = 'Information not available' /*Discontinued on UB-04*/ 'A' = 'Transfer from a Critical Access Hospital' '11' = 'Newborn - Normal Delivery' '12' = 'Newborn - Premature Delivery' '13' = 'Newborn - Sick Delivery' '14' = 'Newborn - Extramural Birth' /*New on UB-04*/ '15' = 'Newborn - Born In Hospital' '16' = 'Newborn - Transfer' /*B & C should not appear in hospitalization data, useful to know*/ 'B' = 'Transfer from another Home Health Agency' 'C' = 'Readmission to same Home Health Agency' 'D' = 'Transfer from hosp IP in same fac - sep clm to payer' 'E' = 'Transfer from ambulatory surgery center' 'F' = 'Transfer from Hospice Program' OTHER = 'Other / Unknown'				

ADMISSION TYPE

Admission type is a one digit variable for type of admission, such as 'emergency,' 'urgent,' etc..

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
ADMTYPE	1,2,3,4,5,9	AD_Type.sas	None	Values can be found in the associated SAS format, in the directory H:\MHDD\Formats.
1 = 'Emergency' 2 = 'Urgent' 3 = 'Elective' 4 = 'Newborn' 5 = 'Trauma Center' OTHER = 'Other / Unknown'				

DISCHARGE DATE

Discharge date is the patient's date of discharge. It is stored as a SAS serial date (number of days since Jan 1, 1960). Thus, it displays with values such as 08/04/2000 in SAS and 15-Dec-2000 in SPSS.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
DISCHDATE	SAS Serial Date	MMDDYY10.	None	Variables can be derived using SAS date functions such as YEAR, DAY, MONTH.
DISYEAR	2000-2010			Created using SAS data function YEAR()

PAYER IDENTIFIER

Payer identifier is a one digit numeric class variable for four classes: Medicare, Medicaid / Other Government, Commercial, and Other. This replaces the previous PAYERID variable, which contained too many categories of payer to be useful. Beginning in 2010, specific payers were no longer provided by the Montana Hospital Association. Payer has been provided in slightly different formats from MHA, so comparisons from year to year may be affected.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
PAYERCLASS	1,2,3,9	Pay_Short.sas		This variable contains three classes of payer, Medicare, Medicaid / Other Government, Commercial, and Other.
		PayID.sas	PAYERID	Replaced with a variable with four categories of payer. This is to comply with our data use agreement with MHA. Additional specificity is available on special request.
			PAYERIDCHAR	This retains character values found in the raw data. Meaning of the character values is unknown.
1 = 'Commercial' 2 = 'Medicare' 3 = 'Medicaid / Other Government' 4,9 = 'Other / Unknown'				

PRIMARY DIAGNOSIS, SECONDARY DIAGNOSIS (1-8)

Primary diagnosis and secondary diagnosis codes (up to 8) are stored as ICD – 9 –CM codes, and can be looked up at the website <http://www.icd9data.com>, among others. They are stored without the decimal point, and as up to five byte character values.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
PRIM, S1-S8	'0020'-'V7283'	See table below	None	Classification can be somewhat difficult because of SAS collating sequences. Created formats use blanks for lower values, (to capture when less information is coded) and 'ZZ' for upper values (beyond the natural range of 9). Because of the large number of uses of primary and secondary diagnosis codes, many formats have been created.

Associated Formats	
Name	Description
\$DX_CLASS.FMT.SAS	(very specific, but abbreviation heavy)
\$NCHSCCLASS	(based on a report from NCHS)
\$ICD_9_major	(major categories only)
"001" "- "139ZZ" = "Infectious and parasitic diseases" "140" "- "239ZZ" = "Neoplasms" "240" "- "279ZZ" = "Endocrine, nutritional and metabolic diseases, and immunity disorders" "280" "- "289ZZ" = "Diseases of the blood and blood-forming organs" "290" "- "319ZZ" = "Mental disorders" "320" "- "359ZZ" = "Diseases of the nervous system" "360" "- "389ZZ" = "Diseases of the sense organs" "390" "- "459ZZ" = "Diseases of the circulatory system" "460" "- "519ZZ" = "Diseases of the respiratory system" "520" "- "579ZZ" = "Diseases of the digestive system" "580" "- "629ZZ" = "Diseases of the genitourinary system" "630" "- "676ZZ" = "Complications of pregnancy, childbirth, and the puerperium" "680" "- "709ZZ" = "Diseases of the skin and subcutaneous tissue" "710" "- "739ZZ" = "Diseases of the musculoskeletal system and connective tissue" "740" "- "759ZZ" = "Congenital anomalies" "760" "- "779ZZ" = "Certain conditions originating in the perinatal period" "780" "- "799ZZ" = "Symptoms, signs, and ill-defined conditions" "800" "- "999ZZ" = "Injury and poisoning" "E00" "- "E99ZZ" = "External causes of injury" "V00" "- "V99ZZ" = "Supplemental classification"	

PRINCIPAL PROCEDURE, PROCEDURE 1 - 5

Principal procedure, and procedure 1 – procedure 5 are 4 byte character procedure codes, stored without the decimal point. These should be treated as character variables, as leading zeros are significant. Thus, the code 050 is different than the code 50. The codes are ICD-9-CM procedure codes, not CPT codes, as previously stated. Beginning in 2010, dates of each procedure are available.

The format is based upon information at: http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/o6_codes.asp. A link to the txt file containing the raw values can be found in the SAS format.

Alternatively, one drop down website for ICD-9-CM procedures is <http://icd9cm.chrisendres.com/index.php?action=procslist>.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
PRINPROC PROC1-PROC5		\$PR_CLASS.FMT.SAS	None	Current format is based upon a format provided by NCHS.
PRINPROCDATE PROC1DATE – PROC5DATE				Date variable of each procedure. These are stored as SAS serial dates, but print in human readable form in both SAS and SPSS.

DIAGNOSIS RELATED GROUP

Diagnosis related group is a numeric variable relating to Medicare reimbursement.

Diagnosis-related group (DRG) is a system to classify [hospital](#) cases into one of approximately 500 groups, also referred to as DRGs, expected to have similar hospital resource use, developed for [Medicare](#) as part of the prospective payment system. DRGs are assigned by a "grouper" program based on [ICD](#) diagnoses, procedures, age, sex, discharge status, and the presence of complications or [comorbidities](#). DRGs have been used in the US since 1983 to determine how much Medicare pays the hospital, since patients within each category are similar clinically and are expected to use the same level of hospital resources. DRGs may be further grouped into [Major Diagnostic Categories](#) (MDCs).

http://en.wikipedia.org/wiki/Diagnosis-related_group

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
DRG			None	

MAJOR DIAGNOSTIC CATEGORY

Major diagnostic category is a numeric variable relating to Medicare reimbursement.

The **Major Diagnostic Categories** (MDC) are formed by dividing all possible principal diagnoses (from [ICD-9-CM](#)) into 25 mutually exclusive diagnosis areas.

The diagnoses in each MDC correspond to a single organ system or [etiology](#) and, in general, are associated with a particular medical specialty. MDC 1 to MDC 23 are grouped according to principal diagnoses. Patients are assigned to MDC 24 (Multiple Significant [Trauma](#)) with at least two significant trauma diagnosis codes (either as principal or secondaries) from different body site categories. Patients assigned to MDC 25 ([HIV](#) Infections) must have a principal diagnosis of an HIV Infection or a principal diagnosis of a significant HIV related condition and a secondary diagnosis of an HIV Infection.

MDC 0, unlike the others, can be reached from a number of diagnosis/procedure situations. It is reached due to certain procedures, all of which are transplant-related. This is due to the expense involved for the transplants so designated and due to the fact that these transplants can be needed for a number of reasons which do not all come from one diagnosis domain. DRGs which reach MDC 0 are assigned to the MDC for the principal diagnosis instead of to the MDC associated with the designated DRG.

MDC codes, like [DRG](#) codes, are primarily a claims and administrative data element unique to the [United States](#) medical care reimbursement system.

http://en.wikipedia.org/wiki/Major_Diagnostic_Category

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
MDC	0, 1-25		None	
0 ='Pre-MDC ' 1 ='Nervous System ' 2 ='Eye ' 3 ='Ear, Nose, Mouth And Throat ' 4 ='Respiratory System ' 5 ='Circulatory System ' 6 ='Digestive System ' 7 ='Hepatobiliary System And Pancreas ' 8 ='Musculoskeletal System And Connective Tissue ' 9 ='Skin, Subcutaneous Tissue And Breast '				

10= 'Endocrine, Nutritional And Metabolic System '
11= 'Kidney And Urinary Tract '
12= 'Male Reproductive System '
13= 'Female Reproductive System '
14= 'Pregnancy, Childbirth And Puerperium '
15= 'Newborn And Other Neonates (Perinatal Period) '
16= 'Blood and Blood Forming Organs and Immunological Disorders '
17= 'Myeloproliferative DDs (Poorly Differentiated Neoplasms) '
18= 'Infectious and Parasitic DDs '
19= 'Mental Diseases and Disorders '
20= 'Alcohol/Drug Use or Induced Mental Disorders '
21= 'Injuries, Poison And Toxic Effect of Drugs '
22= 'Burns '
23= 'Factors Influencing Health Status '
24= 'Multiple Significant Trauma '
25= 'Human Immunodeficiency Virus Infection '

DISCHARGE STATUS

Discharge status is a numeric variable indicating the status of patients.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
DISCHSTATUS	1-72	Dis_Status.sas	None	

Associated Formats	
Name	Description
Dis_Status.sas	Provides a large level of detail. Collapsed short format below is generally preferable.
Dis_Short.sas	Contains fewer categories
1 = 'Routine Discharge (to home or self care) ' 2,3,4,5,61,62,63,64,65,43,9,10,11,51,71,72,30,31,6,8,50 = 'Discharge/transferred to another health care facility or home with care' 20,21,40,41,42 = 'Expired' 7,OTHER = 'Other / Unknown'	

AGE

Age is the patient's age in years.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
AGE	0-108		None	Formats can be brought in as needed, including formats for age adjustment, etc..

LENGTH OF STAY

Length of stay is the length of the hospitalization in days.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
LOS	0-365		None	Length of stay is heavily right skewed, so comparisons may be difficult. 80% of hospitalizations are five days or less.

E-CODES

External Cause Of Injury Codes (E-codes) are used for external causes of injury. These are five byte character variables, coded using ICD – 9 – CM codes in the E group. System upgrades greatly increased the proportion of injury hospitalizations in the second half of 2010, other external upgrades increased the proportion again in 2009. The MHDDS report *Results of the E-Code Quality Improvement Survey, 2011* has further information on the increase in proportion of injury hospitalizations with E-codes.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
ECODE1 and ECODE2 and ECODE3 (2009 forward)	ICD – 9 – CM codes in the E range.		None	Until the second half of 2010, E-coding was sporadic. A change in software greatly increased the number of E-coded records, starting in the second half of 2010.

TOTAL CHARGES

Total charges are first available in 2010, due to an expanded agreement with MHA. The agreement with MHA limits the use of total charges to compare burden at the statewide level, comparisons between hospitals, or even regions, are not permitted by the agreement. The MHDDS has made no attempt to adjust charges for inflation or rising health care costs in past reports.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
TOTALCHARGE				Total charges for the hospitalization, in USD.

PATIENT'S ZIP CODE

Patient's zip code of residence is first available in 2010, as part of the expanded fields available from MHA.

MONTANA HOSPITAL DISCHARGE DATA SYSTEM VARIABLE NAMES				
Current Name	Current Values (2010 forward)	Associated Formats	Legacy Values	Comments
PTZIP				Five digit zip code for each patient.